



results of BLAST

C

BLASTP 2.2.6 [Apr-09-2003]**Reference:**

Altschul, Stephen F., Thomas L. Madden, Alejandro A. Schäffer, Jinghui Zhang, Zheng Zhang, Webb Miller, and David J. Lipman (1997), "Gapped BLAST and PSI-BLAST: a new generation of protein database search programs", Nucleic Acids Res. 25:3389-3402.

RID: 1054225574-06419-8963

Query=

(42 letters)

Database: All non-redundant GenBank CDS
translations+PDB+SwissProt+PIR+PRF

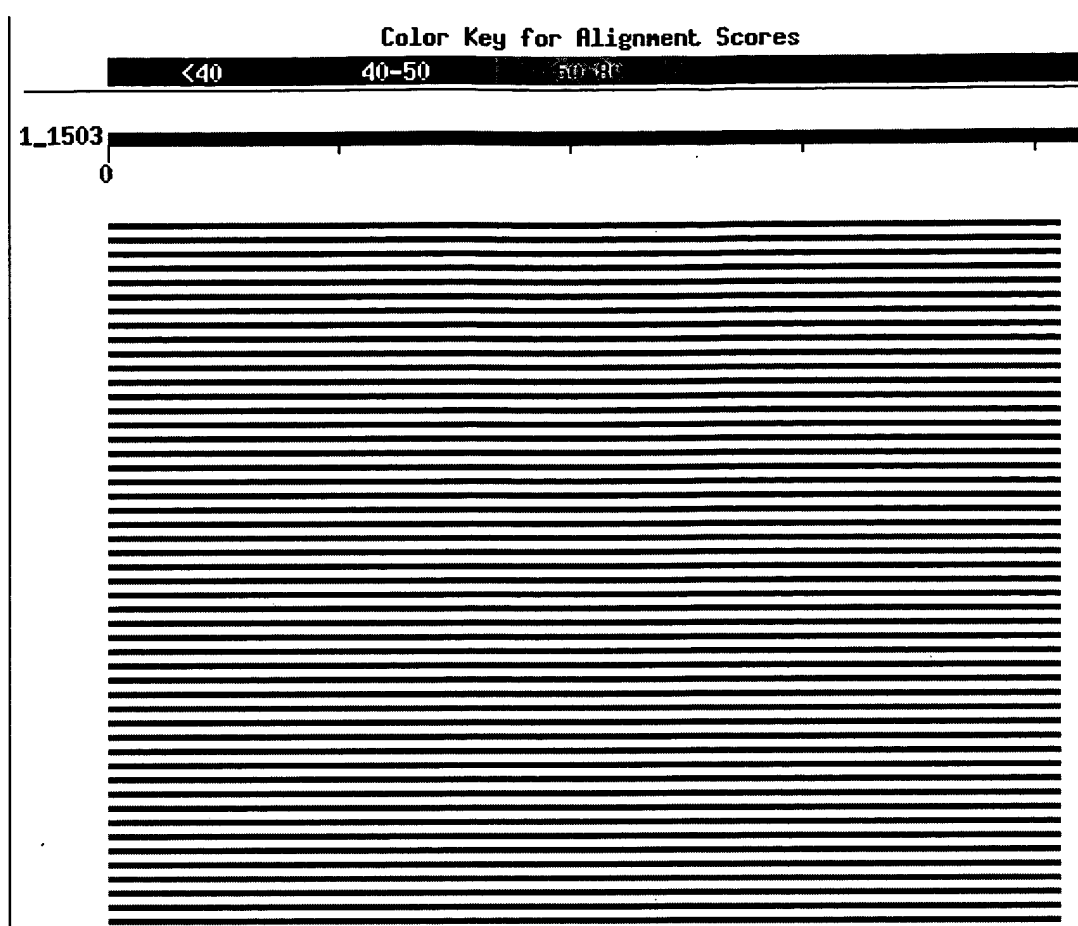
1,438,044 sequences; 462,300,935 total letters

If you have any problems or questions with the results of this search
please refer to the [BLAST FAQs](#)

[Taxonomy reports](#)

Distribution of 102 Blast Hits on the Query Sequence

Mouse-over to show defline and scores. Click to show alignments



Related Structures

Sequences producing significant alignments:

Score E
(bits) Value

gi 27806513 ref NP_776553.1	neuregulin 1 [Bos taurus]	>gi ...	137	2e-32	L
gi 2135345 pir S62676	heregulin isoform alpha 2 - human (f...		134	2e-31	
gi 7669518 ref NP_039253.1	neuregulin 1 isoform SMDF; here...		134	2e-31	L
gi 22004071 tpg DAA00040.1	TPA: neuregulin 1 isoform HRG-g...		134	2e-31	L
gi 284149 pir A43273	heregulin precursor, splice form alph...		134	2e-31	
gi 14043365 gb AAH07675.1 AAH07675	neuregulin 1 [Homo sapie...		134	2e-31	L
gi 7669524 ref NP_039256.1	neuregulin 1 isoform GGF2; here...		134	2e-31	L
gi 22004078 tpg DAA00047.1	TPA: neuregulin 1 isoform GGF2 ...		134	2e-31	L
gi 7513201 pir I38405	neu differentiation factor - human (...)		134	2e-31	L
gi 7669526 ref NP_039258.1	neuregulin 1 isoform HRG-alpha;...		134	2e-31	L
gi 7669514 ref NP_039251.1	neuregulin 1 isoform HRG-beta2;...		134	2e-31	L
gi 408407 gb AAA19953.1	neu differentiation factor		134	2e-31	L
gi 4758526 ref NP_004486.1	neuregulin 1 isoform HRG-gamma;...		134	2e-31	L
gi 482989 pir B43273	heregulin, splice form beta 1 - human		134	2e-31	
gi 2406644 gb AAC51756.1	gamma-heregulin [Homo sapiens]		134	2e-31	
gi 7669520 ref NP_039254.1	neuregulin 1 isoform ndf43; her...		134	2e-31	L
gi 22004079 tpg DAA00048.1	TPA: neuregulin 1 isoform HRG-a...		134	2e-31	L
gi 7669516 ref NP_039252.1	neuregulin 1 isoform HRG-beta3;...		134	2e-31	L
gi 483138 pir C43273	heregulin precursor, splice form beta...		134	2e-31	
gi 22004072 tpg DAA00041.1	TPA: neuregulin 1 isoform HRG-b...		134	2e-31	L

gi 7669522 ref NP_039255.1	neuregulin 1 isoform GGF; hereg...	134	2e-31	L
gi 2459765 gb AAB71812.1	neuregulin [Mesocricetus auratus]	134	2e-31	
gi 30584177 gb AAP36337.1	Homo sapiens neuregulin 1 [synth...	134	2e-31	
gi 408409 gb AAA19954.1	neu differentiation factor	134	2e-31	L
gi 7459696 pir I38408	neu differentiation factor - human (...)	134	2e-31	L
gi 7669512 ref NP_039250.1	neuregulin 1 isoform HRG-beta1;...	134	2e-31	L
gi 22004076 tpg DAA00045.1	TPA: neuregulin 1 isoform ndf43...	134	2e-31	L
gi 22004073 tpg DAA00042.1	TPA: neuregulin 1 isoform HRG-b...	134	2e-31	L
gi 26339516 dbj BAC33429.1	unnamed protein product [Mus mu...	132	8e-31	
gi 30519889 ref NP_848706.1	neuregulin 1 [Mus musculus] >g...	132	8e-31	L
gi 29373075 gb AAO72524.1	neuregulin 1-beta 1; NRG1-beta1 ...	132	8e-31	
gi 28483768 ref XP_134101.2	RIKEN cDNA D230005F13 gene [Mu...	132	8e-31	L
gi 11066084 gb AAG28450.1	AF194996_1 glial growth factor GG...	126	7e-29	L
gi 408399 gb AAA19949.1	neu differentiation factor	126	7e-29	L
gi 11066086 gb AAG28451.1	AF194997_1 glial growth factor GG...	126	7e-29	L
gi 408383 gb AAA19941.1	neu differentiation factor >gi 408...	126	7e-29	L
gi 11066048 gb AAG28432.1	AF194443_1 SMDF neuregulin beta 3...	126	7e-29	L
gi 2143869 pir A56210	neu differentiation factor - rat (fr...	126	7e-29	L
gi 11066038 gb AAG28427.1	AF194438_1 SMDF neuregulin beta 1...	126	7e-29	L
gi 11066050 gb AAG28433.1	AF194993_1 glial growth factor be...	126	7e-29	L
gi 7514023 pir I61719	neu differentiation factor - rat >gi...	126	7e-29	L
gi 11066082 gb AAG28449.1	AF194995_1 glial growth factor GG...	126	7e-29	L
gi 9297000 sp P43322 NRG1 RAT	Pro-neuregulin-1 precursor (P...	126	7e-29	L
gi 408391 gb AAA19945.1	neu differentiation factor	126	7e-29	L
gi 11066040 gb AAG28428.1	AF194439_1 SMDF neuregulin alpha ...	126	7e-29	L
gi 11066042 gb AAG28429.1	AF194440_1 SMDF neuregulin alpha ...	126	7e-29	L
gi 13928798 ref NP_113776.1	neuregulin 1 [Rattus norvegicu...	126	7e-29	L
gi 408393 gb AAA19946.1	neu differentiation factor	126	7e-29	L
gi 11066046 gb AAG28431.1	AF194442_1 SMDF neuregulin beta 4...	126	7e-29	L
gi 11066044 gb AAG28430.1	AF194441_1 SMDF neuregulin beta 2...	123	4e-28	L
gi 640060 pdb 1HRE	Heregulin-Alpha (Epidermal Growth Fact...	121	2e-27	S
gi 1633217 pdb 1HAF	Heregulin-Alpha Epidermal Growth Fact...	115	1e-25	S
gi 349729 gb AAA72403.1	heregulin beta-1	115	1e-25	
gi 2961137 gb AAC05671.1	neuregulin beta-2a [Gallus gallus]	104	2e-22	
gi 9297019 sp Q05199 NRG1 CHICK	Pro-neuregulin-1 precursor ...	104	2e-22	
gi 2961139 gb AAC05672.1	neuregulin beta-2b [Gallus gallus]	104	2e-22	
gi 2961135 gb AAC05670.1	neuregulin beta-1a [Gallus gallus]	104	2e-22	
gi 28883520 gb AAO49724.1	neuregulin 1 isoform 4 [Homo sap...	74	3e-13	
gi 4929183 gb AAD33893.1	AF142632_1 cysteine-rich domain ne...	62	1e-09	
gi 9297012 sp O93383 NRG1 XENLA	Pro-neuregulin-1 precursor ...	62	1e-09	
gi 7513200 pir I38403	neu differentiation factor - human (...)	61	3e-09	
gi 15641547 ref NP_231179.1	conserved hypothetical protein...	39	0.010	
gi 2605479 dbj BAA23348.1	NTAK alpha2-1p [Rattus sp.]	32	1.5	
gi 29373059 gb AAO72522.1	neuregulin 2-alpha; NRG2-alpha [...]	32	1.5	
gi 9789757 sp P56974 NRG2 MOUSE	Pro-neuregulin-2 precursor ...	32	1.5	
gi 7669534 ref NP_053587.1	neuregulin 2 isoform 5; neural-...	32	1.5	L
gi 7669532 ref NP_053586.1	neuregulin 2 isoform 4; neural-...	32	1.5	L
gi 4758832 ref NP_004874.1	neuregulin 2 isoform 1; neural-...	32	1.5	L
gi 7669536 ref NP_053588.1	neuregulin 2 isoform 6; neural-...	32	1.5	L
gi 7669530 ref NP_053585.1	neuregulin 2 isoform 3; neural-...	32	1.5	L
gi 7669528 ref NP_053584.1	neuregulin 2 isoform 2; neural-...	32	1.5	L
gi 3914152 sp O35569 NRG2 RAT	Pro-neuregulin-2 precursor (P...	32	1.5	

gi 7459668 pir JC5702	ErbB kinase activator alpha2a, brain...	32	1.5
gi 29373063 gb AAO72523.1	neuregulin 2-beta; NRG2-beta [Mu...	32	1.5
gi 20835855 ref XP_144356.1	similar to KIAA0635 gene produ...	31	2.6
gi 731115 sp P41265 VGLM PUUMK	M polyprotein precursor [Con...	29	8.5
gi 138342 sp P21400 VGLM PUUMH	M polyprotein precursor [Con...	29	8.5
gi 17149019 gb AAL35884.1 AF442614.1	polyprotein [Puumala v...	29	8.5
gi 251348 gb AAB22506.1	envelope glycoprotein G(envelope g...	29	8.5
gi 731116 sp P41266 VGLM PUUMP	M polyprotein precursor [Con...	29	8.5
gi 75196 pir GNVUNE	M polyprotein precursor - Puumala viru...	29	8.5
gi 4757108 emb CAB42098.1	M polyprotein [Topografov hantav...	29	11
gi 2578446 emb CAB06338.1	GPC [Puumala virus]	29	11
gi 17149023 gb AAL35886.1 AF442616.1	polyprotein [Puumala v...	29	11
gi 17149021 gb AAL35885.1 AF442615.1	polyprotein [Puumala v...	29	11
gi 4850249 emb CAB43026.1	glycoprotein precursor [Puumala ...	29	11
gi 912490 gb AAC54481.1	G1/G2 glycoprotein precursor [Puum...	29	11
gi 17149025 gb AAL35887.1 AF442617.1	polyprotein [Puumala v...	29	11
gi 14091352 gb AAK53720.1	polyprotein [Puumala virus]	29	11
gi 138340 sp P27315 VGLM PHV	M polyprotein precursor [Conta...	29	11
gi 27674509 ref XP_239289.1	hypothetical protein XP_239289...	28	20
gi 17545841 ref NP_519243.1	CONSERVED HYPOTHETICAL PROTEIN...	28	27
gi 14164509 dbj BAB55759.1	OSJNBa0025P13.19 [Oryza sativa ...	28	27
gi 27808655 sp P42287 GRK DROME	Protein gurken precursor >g...	28	27
gi 18859115 ref NP_571516.1	notch homolog 1a; neurogenic l...	28	27
gi 1911867 gb AAB50920.1	cadherin 3 [Caenorhabditis elegan...	28	27
gi 17136206 ref NP_476568.1	gurken CG17610-PA [Drosophila ...	28	27
gi 21224494 ref NP_630273.1	putative regulatory protein [S...	28	27
gi 17556871 ref NP_498687.1	CaDHerin family CDH-3 (cdh-3) ...	28	27
gi 2653915 gb AAB87910.1	glycoprotein G1 and G2 precursor;...	27	37

Alignments

Get selected sequences

Select all

Deselect all

>gi|27806513|ref|NP_776553.1| neuregulin 1 [Bos taurus]
gi|7459664|pir|S32359 glial growth factor - bovine
gi|289414|gb|AAA30540.1| glial growth factor
gi|445843|prf|1910316C glial growth factor
Length = 241

Score = 137 bits (317), Expect = 2e-32
Identities = 42/42 (100%), Positives = 42/42 (100%)

Query: 1 TSTSTAGTSHLVKCAEKEKTFVNGGECFMVKDLSNPSRYLC 42
TSTSTAGTSHLVKCAEKEKTFVNGGECFMVKDLSNPSRYLC
Sbjct: 169 TSTSTAGTSHLVKCAEKEKTFVNGGECFMVKDLSNPSRYLC 210

>gi|2135345|pir|S62676 heregulin isoform alpha 2 - human (fragments)
Length = 125

Score = 134 bits (310), Expect = 2e-31
Identities = 41/42 (97%), Positives = 41/42 (97%)

Query: 1 TSTSTAGTSHLVKCAEKEKTFVNGGECFMVKDLSNPSRYLC 42
TSTST GTSHLVKCAEKEKTFVNGGECFMVKDLSNPSRYLC
Sbjct: 66 TSTSTGTSHLVKCAEKEKTFVNGGECFMVKDLSNPSRYLC 107

>gi|7669518|ref|NP_039253.1| neuregulin 1 isoform SMDF; heregulin, alpha (45kD,
p185-activator); glial growth factor; neu
differentiation factor; sensory and motor neuron derived

factor [Homo sapiens]

gi|9297048|sp|Q15491|SMDF HUMAN Neuregulin-1, sensory and motor neuron-derived fact
 gi|1082779|pir|A56943 sensory/motor neuron-derived factor - human
 gi|862423|gb|AAC41764.1| sensory and motor neuron-derived factor
 gi|22004075|tpg|DAA00044.1| TPA: neuregulin 1 isoform SMDF [Homo sapiens]
 Length = 296

Score = 134 bits (310), Expect = 2e-31
 Identities = 41/42 (97%), Positives = 41/42 (97%)

Query: 1 TSTSTAGTSHLVKCAEKEKTFCVNGGECFMVKDLSNPSRYLC 42
 TSTST GTSHLVKCAEKEKTFCVNGGECFMVKDLSNPSRYLC
 Sbjct: 224 TSTSTGTSHLVKCAEKEKTFCVNGGECFMVKDLSNPSRYLC 265

>gi|22004071|tpg|DAA00040.1| TPA: neuregulin 1 isoform HRG-gamma [Homo sapiens]
 Length = 211

Score = 134 bits (310), Expect = 2e-31
 Identities = 41/42 (97%), Positives = 41/42 (97%)

Query: 1 TSTSTAGTSHLVKCAEKEKTFCVNGGECFMVKDLSNPSRYLC 42
 TSTST GTSHLVKCAEKEKTFCVNGGECFMVKDLSNPSRYLC
 Sbjct: 169 TSTSTGTSHLVKCAEKEKTFCVNGGECFMVKDLSNPSRYLC 210

>gi|284149|pir|A43273 heregulin precursor, splice form alpha - human
 Length = 640

Score = 134 bits (310), Expect = 2e-31
 Identities = 41/42 (97%), Positives = 41/42 (97%)

Query: 1 TSTSTAGTSHLVKCAEKEKTFCVNGGECFMVKDLSNPSRYLC 42
 TSTST GTSHLVKCAEKEKTFCVNGGECFMVKDLSNPSRYLC
 Sbjct: 169 TSTSTGTSHLVKCAEKEKTFCVNGGECFMVKDLSNPSRYLC 210

>gi|14043365|gb|AAH07675.1|AAH07675 neuregulin 1 [Homo sapiens]
 gi|30583617|gb|AAP36053.1| neuregulin 1 [Homo sapiens]
 Length = 296

Score = 134 bits (310), Expect = 2e-31
 Identities = 41/42 (97%), Positives = 41/42 (97%)

Query: 1. TSTSTAGTSHLVKCAEKEKTFCVNGGECFMVKDLSNPSRYLC 42
 TSTST GTSHLVKCAEKEKTFCVNGGECFMVKDLSNPSRYLC
 Sbjct: 224 TSTSTGTSHLVKCAEKEKTFCVNGGECFMVKDLSNPSRYLC 265

>gi|7669524|ref|NP_039256.1| neuregulin 1 isoform GGF2; heregulin, alpha (45kD,
 p185-activator); glial growth factor; neu
 differentiation factor; sensory and motor neuron derived
 factor [Homo sapiens]

gi|422837|pir|S32357 glial growth factor - human
 gi|292048|gb|AAB59622.1| recombinant glial growth factor 2
 gi|445841|prf|1910316A glial growth factor
 Length = 422

Score = 134 bits (310), Expect = 2e-31
 Identities = 41/42 (97%), Positives = 41/42 (97%)

Query: 1 TSTSTAGTSHLVKCAEKEKTFCVNGGECFMVKDLSNPSRYLC 42
 TSTST GTSHLVKCAEKEKTFCVNGGECFMVKDLSNPSRYLC
 Sbjct: 350 TSTSTGTSHLVKCAEKEKTFCVNGGECFMVKDLSNPSRYLC 391

>gi|22004078|tpg|DAA00047.1| TPA: neuregulin 1 isoform GGF2 [Homo sapiens]

Length = 422

Score = 134 bits (310), Expect = 2e-31
Identities = 41/42 (97%), Positives = 41/42 (97%)

Query: 1 TSTSTAGTSHLVKCAEKEKTFCVNGGECFMVKDLSNPSRYLC 42
TSTST GTSHLVKCAEKEKTFCVNGGECFMVKDLSNPSRYLC
Sbjct: 350 TSTSTGTSHLVKCAEKEKTFCVNGGECFMVKDLSNPSRYLC 391

>gi|7513201|pir||I38405 neu differentiation factor - human (fragment)
gi|408405|gb|AAA19952.1| neu differentiation factor
Length = 125

Score = 134 bits (310), Expect = 2e-31
Identities = 41/42 (97%), Positives = 41/42 (97%)

Query: 1 TSTSTAGTSHLVKCAEKEKTFCVNGGECFMVKDLSNPSRYLC 42
TSTST GTSHLVKCAEKEKTFCVNGGECFMVKDLSNPSRYLC
Sbjct: 47 TSTSTGTSHLVKCAEKEKTFCVNGGECFMVKDLSNPSRYLC 88

>gi|7669526|ref|NP_039258.1| neuregulin 1 isoform HRG-alpha; heregulin, alpha (p185-activator); glial growth factor; neu differentiation factor; sensory and motor neuron derived factor [Homo sapiens]
gi|9297018|sp|Q02297|NRG1_HUMAN Pro-neuregulin-1 precursor (Pro-NRG1) [Contains: Ne differentiation factor) (Heregulin) (HRG) (Breast cancer cell differentiation factor p45) (Acetylcholine receptor inducing activity) (ARIA) (Sensory and motor neuron-derived factor) (Glial growth factor)]
gi|183993|gb|AAA58638.1| heregulin-alpha
Length = 640

Score = 134 bits (310), Expect = 2e-31
Identities = 41/42 (97%), Positives = 41/42 (97%)

Query: 1 TSTSTAGTSHLVKCAEKEKTFCVNGGECFMVKDLSNPSRYLC 42
TSTST GTSHLVKCAEKEKTFCVNGGECFMVKDLSNPSRYLC
Sbjct: 169 TSTSTGTSHLVKCAEKEKTFCVNGGECFMVKDLSNPSRYLC 210

>gi|7669514|ref|NP_039251.1| neuregulin 1 isoform HRG-beta2; heregulin, alpha (p185-activator); glial growth factor; neu differentiation factor; sensory and motor neuron derived factor [Homo sapiens]
gi|183997|gb|AAA58640.1| heregulin-beta2
Length = 637


Score = 134 bits (310), Expect = 2e-31
Identities = 41/42 (97%), Positives = 41/42 (97%)

Query: 1 TSTSTAGTSHLVKCAEKEKTFCVNGGECFMVKDLSNPSRYLC 42
TSTST GTSHLVKCAEKEKTFCVNGGECFMVKDLSNPSRYLC
Sbjct: 169 TSTSTGTSHLVKCAEKEKTFCVNGGECFMVKDLSNPSRYLC 210

>gi|408407|gb|AAA19953.1| neu differentiation factor
Length = 552

Score = 134 bits (310), Expect = 2e-31
Identities = 41/42 (97%), Positives = 41/42 (97%)


Query: 1 TSTSTAGTSHLVKCAEKEKTFCVNGGECFMVKDLSNPSRYLC 42
TSTST GTSHLVKCAEKEKTFCVNGGECFMVKDLSNPSRYLC
Sbjct: 76 TSTSTGTSHLVKCAEKEKTFCVNGGECFMVKDLSNPSRYLC 117

 >[gi|4758526|ref|NP_004486.1|](#) neuregulin 1 isoform HRG-gamma; heregulin, alpha (p185-activator); glial growth factor; neu differentiation factor; sensory and motor neuron derived factor [Homo sapiens]

[gi|4103568|gb|AAD01795.1|](#) heregulin gamma [Homo sapiens]
Length = 211


Score = 134 bits (310), Expect = 2e-31
Identities = 41/42 (97%), Positives = 41/42 (97%)

Query: 1 TSTSTAGTSHLVKCAEKEKTFCVNGGECFMVKDLSNPSRYLC 42
TSTST GTSHLVKCAEKEKTFCVNGGECFMVKDLSNPSRYLC
Sbjct: 169 TSTSTTGTSHLVKCAEKEKTFCVNGGECFMVKDLSNPSRYLC 210

 >[gi|482989|pir|B43273](#) heregulin, splice form beta 1 - human
Length = 645


Score = 134 bits (310), Expect = 2e-31
Identities = 41/42 (97%), Positives = 41/42 (97%)

Query: 1 TSTSTAGTSHLVKCAEKEKTFCVNGGECFMVKDLSNPSRYLC 42
TSTST GTSHLVKCAEKEKTFCVNGGECFMVKDLSNPSRYLC
Sbjct: 169 TSTSTTGTSHLVKCAEKEKTFCVNGGECFMVKDLSNPSRYLC 210

 >[gi|2406644|gb|AAC51756.1|](#) gamma-heregulin [Homo sapiens]
Length = 768

Score = 134 bits (310), Expect = 2e-31
Identities = 41/42 (97%), Positives = 41/42 (97%)


Query: 1 TSTSTAGTSHLVKCAEKEKTFCVNGGECFMVKDLSNPSRYLC 42
TSTST GTSHLVKCAEKEKTFCVNGGECFMVKDLSNPSRYLC
Sbjct: 696 TSTSTTGTSHLVKCAEKEKTFCVNGGECFMVKDLSNPSRYLC 737

 >[gi|7669520|ref|NP_039254.1|](#) neuregulin 1 isoform ndf43; heregulin, alpha (45kD, p185-activator); glial growth factor; neu differentiation factor; sensory and motor neuron derived factor [Homo sapiens]

[gi|7513199|pir|I38404](#) neu differentiation factor - human
[gi|408403|gb|AAA19951.1|](#) neu differentiation factor
Length = 462


Score = 134 bits (310), Expect = 2e-31
Identities = 41/42 (97%), Positives = 41/42 (97%)

Query: 1 TSTSTAGTSHLVKCAEKEKTFCVNGGECFMVKDLSNPSRYLC 42
TSTST GTSHLVKCAEKEKTFCVNGGECFMVKDLSNPSRYLC
Sbjct: 169 TSTSTTGTSHLVKCAEKEKTFCVNGGECFMVKDLSNPSRYLC 210

 >[gi|22004079|tpg|DAA00048.1|](#) TPA: neuregulin 1 isoform HRG-alpha [Homo sapiens]
Length = 640

Score = 134 bits (310), Expect = 2e-31
Identities = 41/42 (97%), Positives = 41/42 (97%)

Query: 1 TSTSTAGTSHLVKCAEKEKTFCVNGGECFMVKDLSNPSRYLC 42
TSTST GTSHLVKCAEKEKTFCVNGGECFMVKDLSNPSRYLC
Sbjct: 169 TSTSTTGTSHLVKCAEKEKTFCVNGGECFMVKDLSNPSRYLC 210

 >[gi|7669516|ref|NP_039252.1|](#) neuregulin 1 isoform HRG-beta3; heregulin, alpha (p185-activator); glial growth factor; neu

differentiation factor; sensory and motor neuron derived
factor [Homo sapiens]

gi|183999|gb|AAA58641.1| heregulin-beta3
Length = 241

Score = 134 bits (310), Expect = 2e-31
Identities = 41/42 (97%), Positives = 41/42 (97%)

Query: 1 TSTSTAGTSHLVKCAEKEKTFCVNGGECFMVKDLSNPSRYLC 42
TSTST GTSHLVKCAEKEKTFCVNGGECFMVKDLSNPSRYLC
Sbjct: 169 TSTSTTGTSHLVKCAEKEKTFCVNGGECFMVKDLSNPSRYLC 210

>gi|483138|pir||C43273 heregulin precursor, splice form beta-2 - human
Length = 637

Score = 134 bits (310), Expect = 2e-31
Identities = 41/42 (97%), Positives = 41/42 (97%)

Query: 1 TSTSTAGTSHLVKCAEKEKTFCVNGGECFMVKDLSNPSRYLC 42
TSTST GTSHLVKCAEKEKTFCVNGGECFMVKDLSNPSRYLC
Sbjct: 169 TSTSTTGTSHLVKCAEKEKTFCVNGGECFMVKDLSNPSRYLC 210

>gi|22004072|tpg|DAA00041.1| TPA: neuregulin 1 isoform HRG-beta1 [Homo sapiens]
Length = 645

Score = 134 bits (310), Expect = 2e-31
Identities = 41/42 (97%), Positives = 41/42 (97%)

Query: 1 TSTSTAGTSHLVKCAEKEKTFCVNGGECFMVKDLSNPSRYLC 42
TSTST GTSHLVKCAEKEKTFCVNGGECFMVKDLSNPSRYLC
Sbjct: 169 TSTSTTGTSHLVKCAEKEKTFCVNGGECFMVKDLSNPSRYLC 210

>gi|7669522|ref|NP_039255.1| neuregulin 1 isoform GGF; heregulin, alpha (45kD, I
p185-activator); glial growth factor; neu
differentiation factor; sensory and motor neuron derived
factor [Homo sapiens]

gi|483200|pir||D43273 heregulin precursor, splice form beta-3 - human

gi|292050|gb|AAB59358.1| recombinant glial growth factor

gi|22004074|tpg|DAA00043.1| TPA: neuregulin 1 isoform HRG-beta3 [Homo sapiens]

gi|22004077|tpg|DAA00046.1| TPA: neuregulin 1 isoform GGF [Homo sapiens]

gi|445842|prf||1910316B glial growth factor
Length = 241

Score = 134 bits (310), Expect = 2e-31
Identities = 41/42 (97%), Positives = 41/42 (97%)

Query: 1 TSTSTAGTSHLVKCAEKEKTFCVNGGECFMVKDLSNPSRYLC 42
TSTST GTSHLVKCAEKEKTFCVNGGECFMVKDLSNPSRYLC
Sbjct: 169 TSTSTTGTSHLVKCAEKEKTFCVNGGECFMVKDLSNPSRYLC 210

>gi|2459765|gb|AAB71812.1| neuregulin [Mesocricetus auratus]
Length = 461

Score = 134 bits (310), Expect = 2e-31
Identities = 41/42 (97%), Positives = 41/42 (97%)

Query: 1 TSTSTAGTSHLVKCAEKEKTFCVNGGECFMVKDLSNPSRYLC 42
TSTST GTSHLVKCAEKEKTFCVNGGECFMVKDLSNPSRYLC
Sbjct: 169 TSTSTTGTSHLVKCAEKEKTFCVNGGECFMVKDLSNPSRYLC 210

>gi|30584177|gb|AAP36337.1| Homo sapiens neuregulin 1 [synthetic construct]
Length = 297

Score = 134 bits (310), Expect = 2e-31
Identities = 41/42 (97%), Positives = 41/42 (97%)

Query: 1 TSTSTAGTSHLVKCAEKEKTFCVNGGECFMVKDLSNPSRYLC 42
TSTST GTSHLVKCAEKEKTFCVNGGECFMVKDLSNPSRYLC
Sbjct: 224 TSTSTTGTSHLVKCAEKEKTFCVNGGECFMVKDLSNPSRYLC 265

☐ >gi|408409|gb|AAA19954.1| neu differentiation factor
Length = 288

Score = 134 bits (310), Expect = 2e-31
Identities = 41/42 (97%), Positives = 41/42 (97%)

Query: 1 TSTSTAGTSHLVKCAEKEKTFCVNGGECFMVKDLSNPSRYLC 42
TSTST GTSHLVKCAEKEKTFCVNGGECFMVKDLSNPSRYLC
Sbjct: 51 TSTSTTGTSHLVKCAEKEKTFCVNGGECFMVKDLSNPSRYLC 92

☐ >gi|7459696|pir||I38408 neu differentiation factor - human (fragment)
gi|408411|gb|AAA19955.1| neu differentiation factor
Length = 175

Score = 134 bits (310), Expect = 2e-31
Identities = 41/42 (97%), Positives = 41/42 (97%)

Query: 1 TSTSTAGTSHLVKCAEKEKTFCVNGGECFMVKDLSNPSRYLC 42
TSTST GTSHLVKCAEKEKTFCVNGGECFMVKDLSNPSRYLC
Sbjct: 103 TSTSTTGTSHLVKCAEKEKTFCVNGGECFMVKDLSNPSRYLC 144

☐ >gi|7669512|ref|NP_039250.1| neuregulin 1 isoform HRG-beta1; heregulin, alpha (4
p185-activator); glial growth factor; neu
differentiation factor; sensory and motor neuron derived
factor [Homo sapiens]
gi|183995|gb|AAA58639.1| heregulin-beta1
Length = 645

Score = 134 bits (310), Expect = 2e-31
Identities = 41/42 (97%), Positives = 41/42 (97%)

Query: 1 TSTSTAGTSHLVKCAEKEKTFCVNGGECFMVKDLSNPSRYLC 42
TSTST GTSHLVKCAEKEKTFCVNGGECFMVKDLSNPSRYLC
Sbjct: 169 TSTSTTGTSHLVKCAEKEKTFCVNGGECFMVKDLSNPSRYLC 210

☐ >gi|22004076|tpg|DAA00045.1| TPA: neuregulin 1 isoform ndf43 [Homo sapiens]
Length = 462


Score = 134 bits (310), Expect = 2e-31
Identities = 41/42 (97%), Positives = 41/42 (97%)

Query: 1 TSTSTAGTSHLVKCAEKEKTFCVNGGECFMVKDLSNPSRYLC 42
TSTST GTSHLVKCAEKEKTFCVNGGECFMVKDLSNPSRYLC
Sbjct: 169 TSTSTTGTSHLVKCAEKEKTFCVNGGECFMVKDLSNPSRYLC 210

☐ >gi|22004073|tpg|DAA00042.1| TPA: neuregulin 1 isoform HRG-beta2 [Homo sapiens]
Length = 637


Score = 134 bits (310), Expect = 2e-31
Identities = 41/42 (97%), Positives = 41/42 (97%)

Query: 1 TSTSTAGTSHLVKCAEKEKTFCVNGGECFMVKDLSNPSRYLC 42
TSTST GTSHLVKCAEKEKTFCVNGGECFMVKDLSNPSRYLC
Sbjct: 169 TSTSTTGTSHLVKCAEKEKTFCVNGGECFMVKDLSNPSRYLC 210

 >gi|26339516|dbj|BAC33429.1| unnamed protein product [Mus musculus]
Length = 296


Score = 132 bits (305), Expect = 8e-31
Identities = 40/42 (95%), Positives = 41/42 (97%)

Query: 1 TSTSTAGTSHLVKCAEKEKTFVNGGECFMVKDLSNPSRYLC 42
TSTST GTSHL+KCAEKEKTFVNGGECFMVKDLSNPSRYLC
Sbjct: 224 TSTSTTGTSHLIKCAEKEKTFVNGGECFMVKDLSNPSRYLC 265

 >gi|30519889|ref|NP_848706.1| neuregulin 1 [Mus musculus]
gi|26342244|dbj|BAC34784.1| unnamed protein product [Mus musculus]
Length = 211


Score = 132 bits (305), Expect = 8e-31
Identities = 40/42 (95%), Positives = 41/42 (97%)

Query: 1 TSTSTAGTSHLVKCAEKEKTFVNGGECFMVKDLSNPSRYLC 42
TSTST GTSHL+KCAEKEKTFVNGGECFMVKDLSNPSRYLC
Sbjct: 169 TSTSTTGTSHLIKCAEKEKTFVNGGECFMVKDLSNPSRYLC 210

 >gi|29373075|gb|AA072524.1| neuregulin 1-beta 1; NRG1-beta1 [Mus musculus]
Length = 76


Score = 132 bits (305), Expect = 8e-31
Identities = 40/42 (95%), Positives = 41/42 (97%)

Query: 1 TSTSTAGTSHLVKCAEKEKTFVNGGECFMVKDLSNPSRYLC 42
TSTST GTSHL+KCAEKEKTFVNGGECFMVKDLSNPSRYLC
Sbjct: 2 TSTSTTGTSHLIKCAEKEKTFVNGGECFMVKDLSNPSRYLC 43

 >gi|28483768|ref|XP_134101.2| RIKEN cDNA D230005F13 gene [Mus musculus]
Length = 296

Score = 132 bits (305), Expect = 8e-31
Identities = 40/42 (95%), Positives = 41/42 (97%)

Query: 1 TSTSTAGTSHLVKCAEKEKTFVNGGECFMVKDLSNPSRYLC 42
TSTST GTSHL+KCAEKEKTFVNGGECFMVKDLSNPSRYLC
Sbjct: 224 TSTSTTGTSHLIKCAEKEKTFVNGGECFMVKDLSNPSRYLC 265

 >gi|11066084|gb|AAG28450.1|AF194996 1 glial growth factor GGF beta 3 [Rattus norvegicus]
Length = 323

Score = 126 bits (290), Expect = 7e-29
Identities = 39/42 (92%), Positives = 40/42 (95%)

Query: 1 TSTSTAGTSHLVKCAEKEKTFVNGGECFMVKDLSNPSRYLC 42
TSTST GTSHL+KCAEKEKTFVNGGECF VKDLSNPSRYLC
Sbjct: 251 TSTSTTGTSHLIKCAEKEKTFVNGGECFTVKDLSNPSRYLC 292

 >gi|408399|gb|AAA19949.1| neu differentiation factor
Length = 422

Score = 126 bits (290), Expect = 7e-29
Identities = 39/42 (92%), Positives = 40/42 (95%)

Query: 1 TSTSTAGTSHLVKCAEKEKTFVNGGECFMVKDLSNPSRYLC 42
TSTST GTSHL+KCAEKEKTFVNGGECF VKDLSNPSRYLC
Sbjct: 169 TSTSTTGTSHLIKCAEKEKTFVNGGECFTVKDLSNPSRYLC 210

>gi|11066086|gb|AAG28451.1|AF194997.1 glial growth factor GGF beta 4 [Rattus norvegicus]
Length = 342

Score = 126 bits (290), Expect = 7e-29
Identities = 39/42 (92%), Positives = 40/42 (95%)

Query: 1 TSTSTAGTSHLVKCAEKEKTFCVNGGECFMVKDLSNPSRYLC 42
TSTST GTSHL+KCAEKEKTFCVNGGECF VKDLSNPSRYLC
Sbjct: 251 TSTSTTGTSHLIKAEKEKTFCVNGGECFTVKDLSNPSRYLC 292

>gi|408383|gb|AAA19941.1| neu differentiation factor
gi|408385|gb|AAA19942.1| neu differentiation factor
Length = 461

Score = 126 bits (290), Expect = 7e-29
Identities = 39/42 (92%), Positives = 40/42 (95%)

Query: 1 TSTSTAGTSHLVKCAEKEKTFCVNGGECFMVKDLSNPSRYLC 42
TSTST GTSHL+KCAEKEKTFCVNGGECF VKDLSNPSRYLC
Sbjct: 169 TSTSTTGTSHLIKAEKEKTFCVNGGECFTVKDLSNPSRYLC 210

>gi|11066048|gb|AAG28432.1|AF194443.1 SMDF neuregulin beta 3 [Rattus norvegicus]
Length = 256

Score = 126 bits (290), Expect = 7e-29
Identities = 39/42 (92%), Positives = 40/42 (95%)

Query: 1 TSTSTAGTSHLVKCAEKEKTFCVNGGECFMVKDLSNPSRYLC 42
TSTST GTSHL+KCAEKEKTFCVNGGECF VKDLSNPSRYLC
Sbjct: 184 TSTSTTGTSHLIKAEKEKTFCVNGGECFTVKDLSNPSRYLC 225

>gi|2143869|pir|A56210 neu differentiation factor - rat (fragment)
gi|408381|gb|AAA19940.1| neu differentiation factor
Length = 230

Score = 126 bits (290), Expect = 7e-29
Identities = 39/42 (92%), Positives = 40/42 (95%)

Query: 1 TSTSTAGTSHLVKCAEKEKTFCVNGGECFMVKDLSNPSRYLC 42
TSTST GTSHL+KCAEKEKTFCVNGGECF VKDLSNPSRYLC
Sbjct: 158 TSTSTTGTSHLIKAEKEKTFCVNGGECFTVKDLSNPSRYLC 199

>gi|11066038|gb|AAG28427.1|AF194438.1 SMDF neuregulin beta 1a [Rattus norvegicus]
Length = 700

Score = 126 bits (290), Expect = 7e-29
Identities = 39/42 (92%), Positives = 40/42 (95%)

Query: 1 TSTSTAGTSHLVKCAEKEKTFCVNGGECFMVKDLSNPSRYLC 42
TSTST GTSHL+KCAEKEKTFCVNGGECF VKDLSNPSRYLC
Sbjct: 225 TSTSTTGTSHLIKAEKEKTFCVNGGECFTVKDLSNPSRYLC 266

>gi|11066050|gb|AAG28433.1|AF194993.1 glial growth factor beta 1a [Rattus norvegicus]
Length = 782

Score = 126 bits (290), Expect = 7e-29
Identities = 39/42 (92%), Positives = 40/42 (95%)

Query: 1 TSTSTAGTSHLVKCAEKEKTFCVNGGECFMVKDLSNPSRYLC 42
TSTST GTSHL+KCAEKEKTFCVNGGECF VKDLSNPSRYLC
Sbjct: 307 TSTSTTGTSHLIKAEKEKTFCVNGGECFTVKDLSNPSRYLC 348

☐ >gi|7514023|pir||I61719 neu differentiation factor - rat
gi|408389|gb|AAA19944.1| neu differentiation factor
gi|408397|gb|AAA19948.1| neu differentiation factor
Length = 639

Score = 126 bits (290), Expect = 7e-29
Identities = 39/42 (92%), Positives = 40/42 (95%)

Query: 1 TSTSTAGTSHLVKCAEKEKTFCVNGGECFMVKDLSNPSRYLC 42
TSTST GTSHL+KCAEKEKTFCVNGGECF VKDLSNPSRYLC
Sbjct: 169 TSTSTTGTSHLIKAEKEKTFCVNGGECFTVKDLSNPSRYLC 210

☐ >gi|11066082|gb|AAG28449.1|AF194995 1 glial growth factor GGF beta 2 [Rattus norvegicus]
Length = 317

Score = 126 bits (290), Expect = 7e-29
Identities = 39/42 (92%), Positives = 40/42 (95%)

Query: 1 TSTSTAGTSHLVKCAEKEKTFCVNGGECFMVKDLSNPSRYLC 42
TSTST GTSHL+KCAEKEKTFCVNGGECF VKDLSNPSRYLC
Sbjct: 251 TSTSTTGTSHLIKAEKEKTFCVNGGECFTVKDLSNPSRYLC 292

☐ >gi|9297000|sp|P43322|NRG1_RAT Pro-neuregulin-1 precursor (Pro-NGR1) [Contains: Neuregulin-1 (Heregulin) (HRG) (Acetylcholine receptor inducing activity) (ARIA) (Sensory and motor neuron-derived factor) (Glial growth factor)]
gi|7459673|pir||I61722 neu differentiation factor - rat
gi|408395|gb|AAA19947.1| neu differentiation factor
Length = 662

Score = 126 bits (290), Expect = 7e-29
Identities = 39/42 (92%), Positives = 40/42 (95%)

Query: 1 TSTSTAGTSHLVKCAEKEKTFCVNGGECFMVKDLSNPSRYLC 42
TSTST GTSHL+KCAEKEKTFCVNGGECF VKDLSNPSRYLC
Sbjct: 169 TSTSTTGTSHLIKAEKEKTFCVNGGECFTVKDLSNPSRYLC 210

☐ >gi|408391|gb|AAA19945.1| neu differentiation factor
Length = 304

Score = 126 bits (290), Expect = 7e-29
Identities = 39/42 (92%), Positives = 40/42 (95%)

Query: 1 TSTSTAGTSHLVKCAEKEKTFCVNGGECFMVKDLSNPSRYLC 42
TSTST GTSHL+KCAEKEKTFCVNGGECF VKDLSNPSRYLC
Sbjct: 169 TSTSTTGTSHLIKAEKEKTFCVNGGECFTVKDLSNPSRYLC 210

☐ >gi|11066040|gb|AAG28428.1|AF194439 1 SMDF neuregulin alpha 2a [Rattus norvegicus]
Length = 695

Score = 126 bits (290), Expect = 7e-29
Identities = 39/42 (92%), Positives = 40/42 (95%)

Query: 1 TSTSTAGTSHLVKCAEKEKTFCVNGGECFMVKDLSNPSRYLC 42
TSTST GTSHL+KCAEKEKTFCVNGGECF VKDLSNPSRYLC
Sbjct: 225 TSTSTTGTSHLIKAEKEKTFCVNGGECFTVKDLSNPSRYLC 266

☐ >gi|11066042|gb|AAG28429.1|AF194440 1 SMDF neuregulin alpha 2b [Rattus norvegicus]
Length = 298

Score = 126 bits (290), Expect = 7e-29

Identities = 39/42 (92%), Positives = 40/42 (95%)

Query: 1 TSTSTAGTSHLVKCAEKEKTFVNGGECFMVKDLSNPSRYLC 42
TSTST GTSHL+KCAEKEKTFVNGGECF VKDLSNPSRYLC
Sbjct: 39 TSTSTTGTSHLIKCAEKEKTFVNGGECFTVKDLSNPSRYLC 80

☐ >[gi|13928798|ref|NP_113776.1|](#) neuregulin 1 [Rattus norvegicus]
[gi|7459671|pir||I61718](#) neu differentiation factor - rat
[gi|408387|gb|AAA19943.1|](#) neu differentiation factor
Length = 636

Score = 126 bits (290), Expect = 7e-29
Identities = 39/42 (92%), Positives = 40/42 (95%)

Query: 1 TSTSTAGTSHLVKCAEKEKTFVNGGECFMVKDLSNPSRYLC 42
TSTST GTSHL+KCAEKEKTFVNGGECF VKDLSNPSRYLC
Sbjct: 169 TSTSTTGTSHLIKCAEKEKTFVNGGECFTVKDLSNPSRYLC 210

☐ >[gi|408393|gb|AAA19946.1|](#) neu differentiation factor
Length = 636

Score = 126 bits (290), Expect = 7e-29
Identities = 39/42 (92%), Positives = 40/42 (95%)

Query: 1 TSTSTAGTSHLVKCAEKEKTFVNGGECFMVKDLSNPSRYLC 42
TSTST GTSHL+KCAEKEKTFVNGGECF VKDLSNPSRYLC
Sbjct: 169 TSTSTTGTSHLIKCAEKEKTFVNGGECFTVKDLSNPSRYLC 210

☐ >[gi|11066046|gb|AAG28431.1|AF194442.1](#) SMDF neuregulin beta 4 [Rattus norvegicus]
Length = 136

Score = 126 bits (290), Expect = 7e-29
Identities = 39/42 (92%), Positives = 40/42 (95%)

Query: 1 TSTSTAGTSHLVKCAEKEKTFVNGGECFMVKDLSNPSRYLC 42
TSTST GTSHL+KCAEKEKTFVNGGECF VKDLSNPSRYLC
Sbjct: 45 TSTSTTGTSHLIKCAEKEKTFVNGGECFTVKDLSNPSRYLC 86

☐ >[gi|11066044|gb|AAG28430.1|AF194441.1](#) SMDF neuregulin beta 2 [Rattus norvegicus]
Length = 111

Score = 123 bits (284), Expect = 4e-28
Identities = 38/42 (90%), Positives = 40/42 (95%)

Query: 1 TSTSTAGTSHLVKCAEKEKTFVNGGECFMVKDLSNPSRYLC 42
T+TST GTSHL+KCAEKEKTFVNGGECF VKDLSNPSRYLC
Sbjct: 45 TTTSTTGTSHLIKCAEKEKTFVNGGECFTVKDLSNPSRYLC 86

Database: All non-redundant GenBank CDS
translations+PDB+SwissProt+PIR+PRF

Posted date: May 29, 2003 2:04 AM

Number of letters in database: 462,300,935

Number of sequences in database: 1,438,044

Lambda K H
0.350 0.284 1.83

Gapped

Lambda K H

0.294 0.110 0.610

Matrix: PAM30

Gap Penalties: Existence: 9, Extension: 1

Number of Hits to DB: 63,837,723

Number of Sequences: 1438044

Number of extensions: 3284577

Number of successful extensions: 16236

Number of sequences better than 20000.0: 100

Number of HSP's better than 20000.0 without gapping: 15604

Number of HSP's successfully gapped in prelim test: 0

Number of HSP's that attempted gapping in prelim test: 0

Number of HSP's gapped (non-prelim): 16222

length of query: 42

length of database: 462,300,935

effective HSP length: 27

effective length of query: 15

effective length of database: 423,473,747

effective search space: 6352106205

effective search space used: 6352106205

T: 11

A: 40

X1: 14 (7.1 bits)

X2: 35 (14.8 bits)

X3: 58 (24.6 bits)

S1: 36 (20.0 bits)

S2: 36 (18.5 bits)